B. In the Claims

Please cancel claims 1 to 11 without prejudice, and add new claims 12 to as shown below. Upon entry of the present amendment, the status of the claims will be as follows:

1 to 11. Cancelled

12. (New) A method of detecting methylation of a p16 gene, comprising:

a) contacting a sample comprising nucleic acid molecules, with oligonucleotide primers that permit amplification of a polynucleotide sequence comprising exon 1 of the p16 gene and of a polynucleotide sequence comprising exon 2 of the p16 gene, under conditions suitable for a nucleic acid amplification reaction; and

b) analyzing the amplification reaction for amplification products, wherein the presence of an amplification product comprising exon 2 of the p16 gene and the absence of an amplification product comprising exon 1 of the p16 gene indicates the p16 gene is methylated, thereby detecting methylation of the p16 gene.

13. (New) The method of claim 12, wherein the oligonucleotide primers that permit amplification of a polynucleotide comprising exon 2 of the p16 gene further permit amplification of polynucleotide comprising 5'ALT.

14. (New) The method of claim 12, wherein the sample comprises a sample of a human.

15. (New) The method of claim 12, wherein the sample comprises a biological fluid, cells, or a tissue.

16. (New) The method of claim 12, wherein methylation of the p16 gene is indicative of a neoplasm.

17. (New) The method of claim 16, wherein the neoplasm is head and neck cancer, breast cancer, renal cancer, colon cancer, or prostate cancer.

18. (New) The method of claim 12, wherein the nucleic acid molecules comprise RNA.

19. (New) The method of claim 18, wherein the amplification reaction comprises reverse transcription and polymerase chain reaction.

20. (New) A kit, comprising oligonucleotide primers that permit amplification of a polynucleotide comprising exon 1 of a p16 gene and exon 2 of the p16 gene.

21. (New) The kit of claim 20, comprising a first forward primer that permits amplification of exon 1 of the p16 gene, a second forward primer that permits amplification of exon 2 of the p16 gene, and at least one reverse primer.

22. (New) The kit of claim 21, comprising one reverse primer, which permits amplification of exon 1 of the 16 gene and exon 2 of the p16 gene.

23. (New) The kit of claim 21, comprising a first reverse primer that permits amplification of exon 1 of the p16 gene and a second reverse primer that permits amplification of exon 2 of the p16 gene.

24. (New) The kit of claim 20, wherein the oligonucleotide primers that permit amplification of a polynucleotide comprising exon 2 of the p16 gene further permit amplification of a polynucleotide comprising 5'ALT.